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-NEWS RELEASE-

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NEW YEAR'S RESOLUTIONS TO EXERCISE PAY OFF FOR HEART DISEASE PATIENTS

ACSM research links exercise with reduced risk of death in patients with existing heart disease

INDIANAPOLIS – In all parts of the world, the start of a new year inspires adults to give up junk food, join a gym or make healthier choices. For one group, the resolution to become more active could literally be the difference between life and death. Research released today by the [American College of Sports Medicine](http://www.acsm.org) finds that being more physically active can help adults suffering from heart disease keep premature death at bay.

The study, "Physical Activity and Cardiovascular Mortality Risk: Possible Protective Mechanisms?" is published in this month's issue of *Medicine & Science in Sports & Exercise*®, the official journal of ACSM. The research team, which included Lee Ingle, Ph.D., examined the relationship between moderate-to-vigorous physical activity and mortality risk in patients with cardiovascular disease.

"It is well established that regular, moderate-to-vigorous physical activity reduces the risk of future cardiac events in healthy individuals and individuals with existing cardiovascular disease," said Ingle, an academic with the Carnegie Research Institute at Leeds Metropolitan University in the United Kingdom. "What are not well understood are the biological mechanisms responsible for reducing the burden of risk. We examined the extent to which changes in typical cardiovascular risk factors explained the association between physical activity and death in individuals with cardiovascular disease."

The study included 1,429 participants, both male and female, with physician-diagnosed heart disease. At a baseline visit, participants reported demographic information, health status, disease history, smoking habits and physical activity levels. Shortly after the baseline visit, nurses recorded medication and body mass, collected blood samples, and measured blood pressure and resting heart rate. Within seven years, 446 of the 1,429 participants died. Death certificates linked 213 of the deaths to cardiovascular disease.

Participation in moderate-to-vigorous physical activity at least three times per week was associated with a much lower risk of cardiovascular-related death. Physically active participants demonstrated significantly lower levels of body mass, diabetes and inflammatory risk. Metabolic risk factors (including body mass index, total-to-HDL cholesterol ratio, and physician-diagnosed diabetes) and inflammatory markers (including C-reactive protein) explained an estimated 12.8 percent and 15.4 percent, respectively, of the association between physical activity and mortality risk.

"The main finding from this study was that moderate-to-vigorous

physical activity reduces the risk of future cardiac events, in part, by improving metabolic and inflammatory risk markers in patients with cardiovascular disease,” said Ingle.

According to the U.S. Centers for Disease Control and Prevention, heart diseases is the leading cause of death in the U.S. The Exercise is Medicine® initiative offers [public tools](#) to help adults combat chronic conditions, such as heart disease, with physical activity.

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Medicine & Science in Sports & Exercise® is the official journal of the American College of Sports Medicine, and is available from Lippincott Williams & Wilkins at 1-800-638-6423. For a complete copy of the research paper (Vol. 44, No. 1, pages 84-88) or to speak with a leading sports medicine expert on the topic, contact the Department of Communications and Public Information at 317-637-9200 ext. 133 or 127. Visit ACSM online at www.acsm.org. The conclusions outlined in this news release are those of the researchers only, and should not be construed as an official statement of the American College of Sports Medicine.

The [American College of Sports Medicine](http://www.acsm.org) is the largest sports medicine and exercise science organization in the world. More than 45,000 international, national and regional members and certified professionals are dedicated to advancing and integrating scientific research to provide educational and practical applications of exercise science and sports medicine.